

Consenso em Redes não Permissionadas via Reputação de Autoria



github.com/Freechains

Francisco Sant'Anna

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 [@_fsantanna](https://twitter.com/_fsantanna)



Fóruns Públicos



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- Comunicação possivelmente maliciosa



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← Consenso via
Reputação

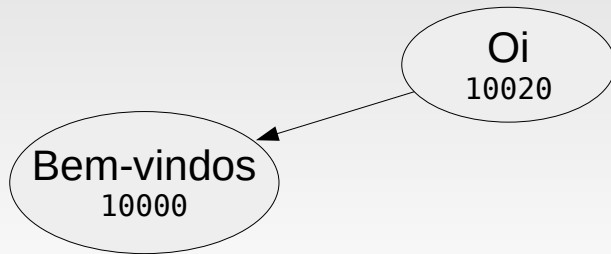


Fóruns são DAGs

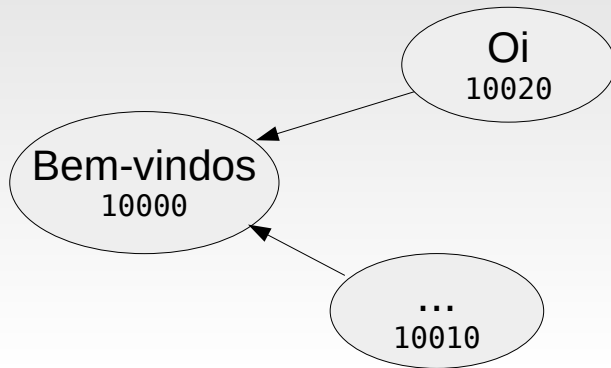
Fóruns são DAGs

Bem-vindos
10000

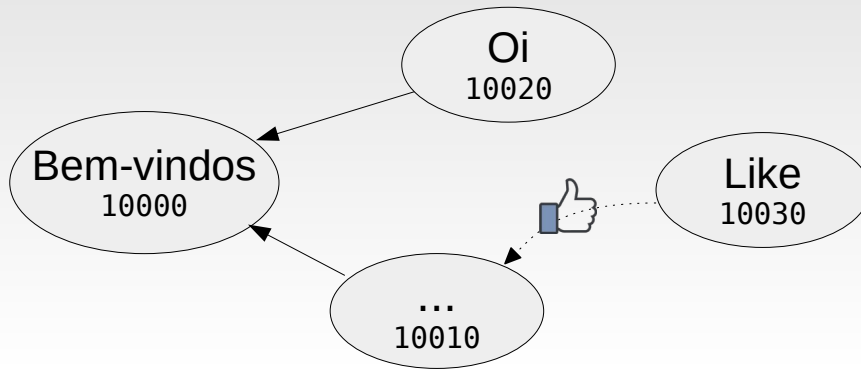
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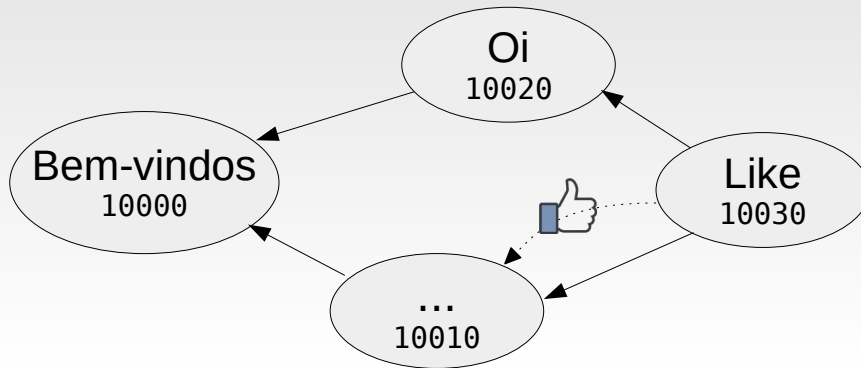
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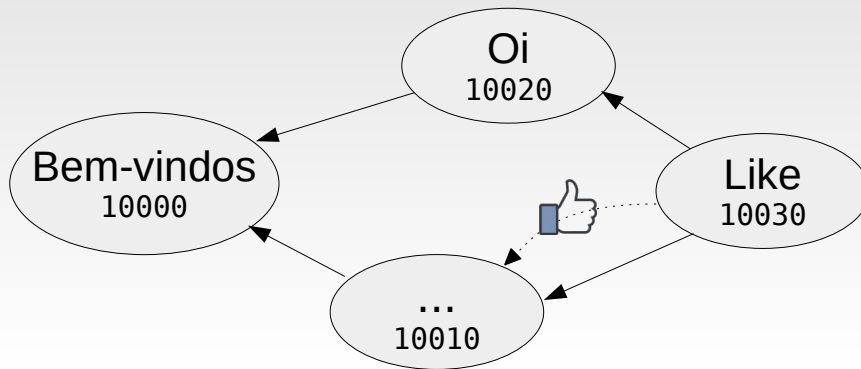
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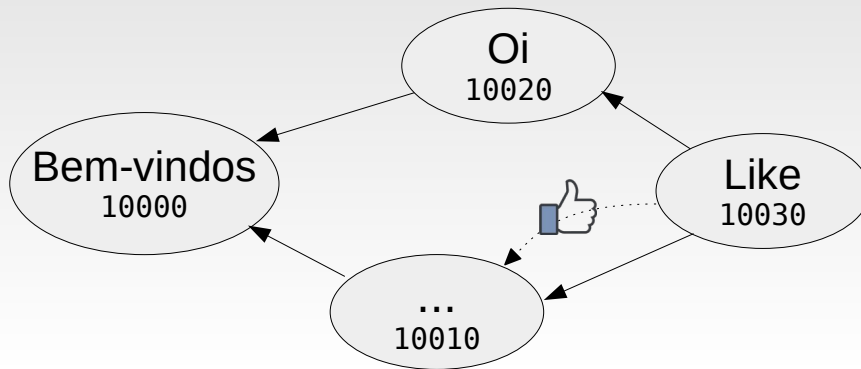


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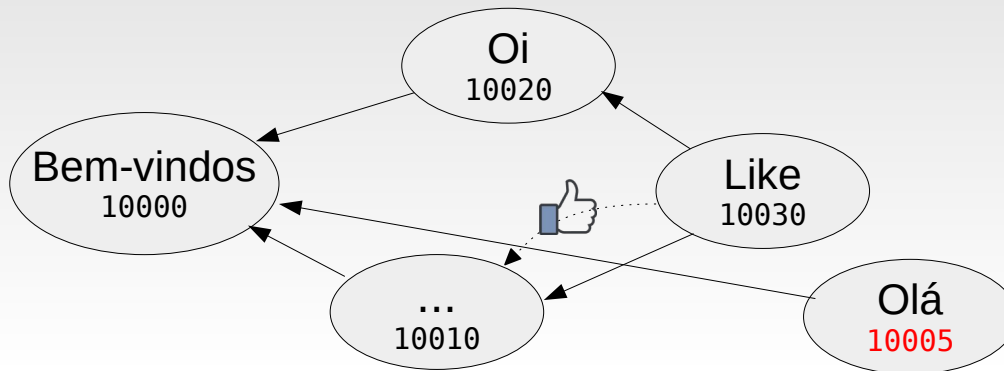
- Não permissionado → Não confiável

Fóruns são DAGs



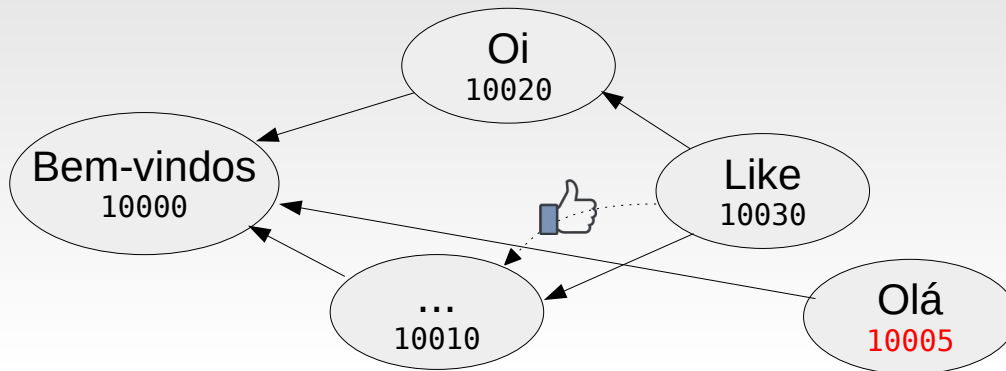
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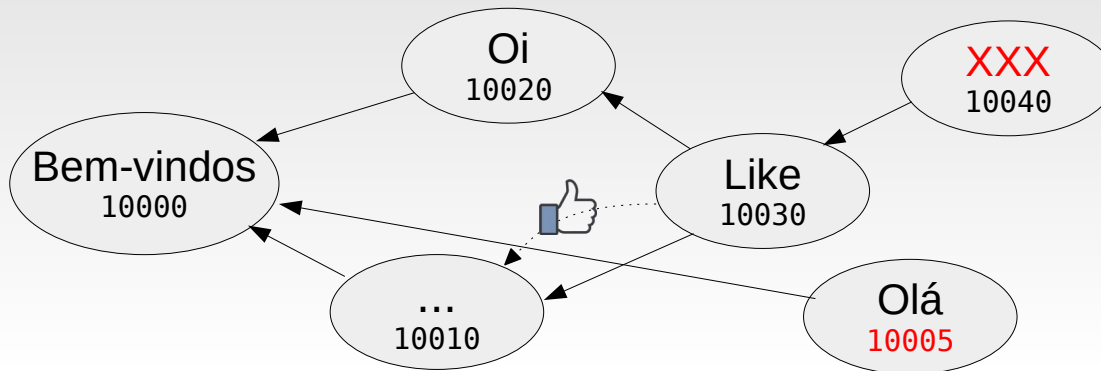
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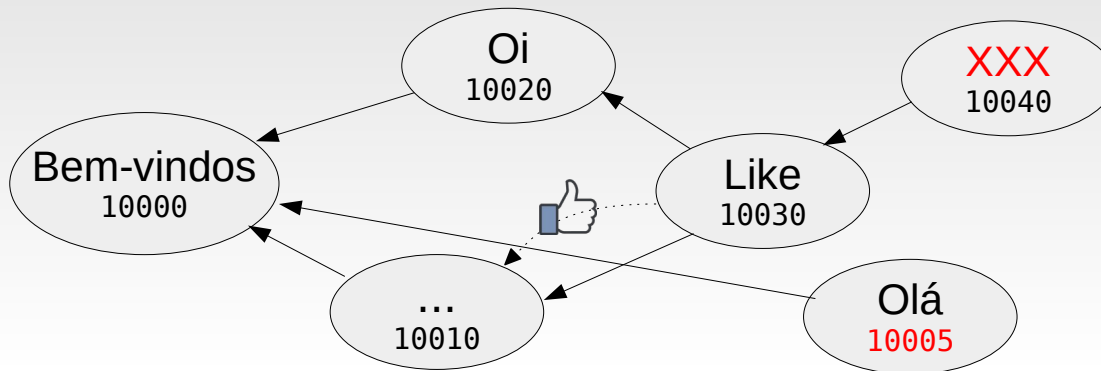
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 - Timestamps (**ordem**)
 - Conteúdo (**qualidade**)

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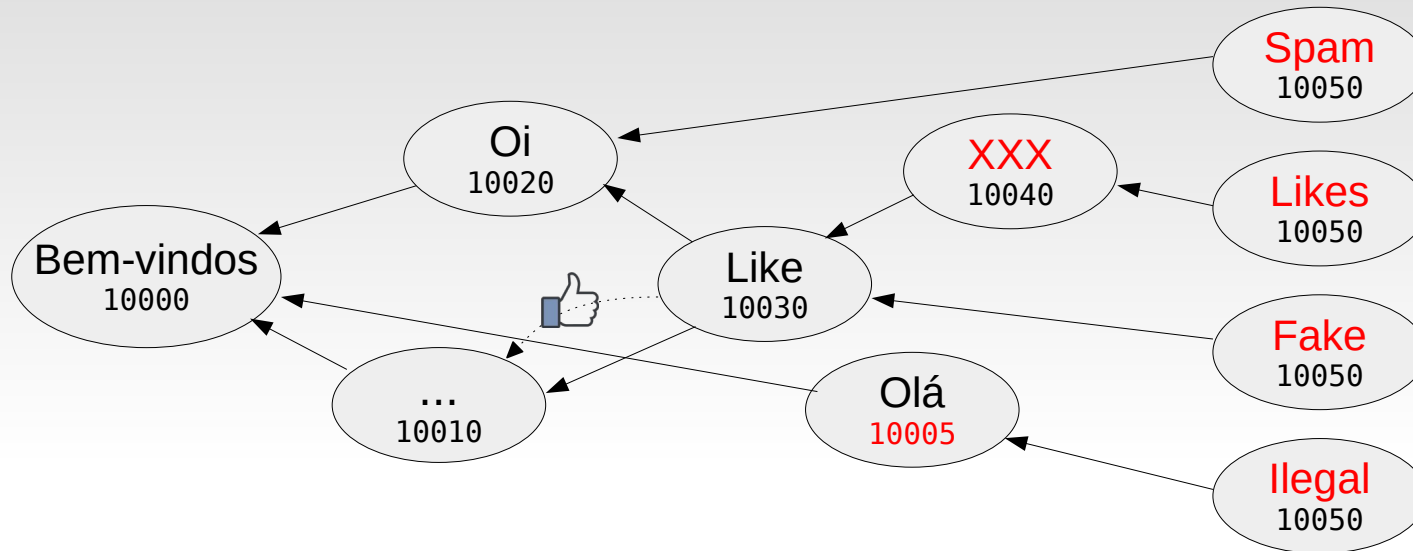
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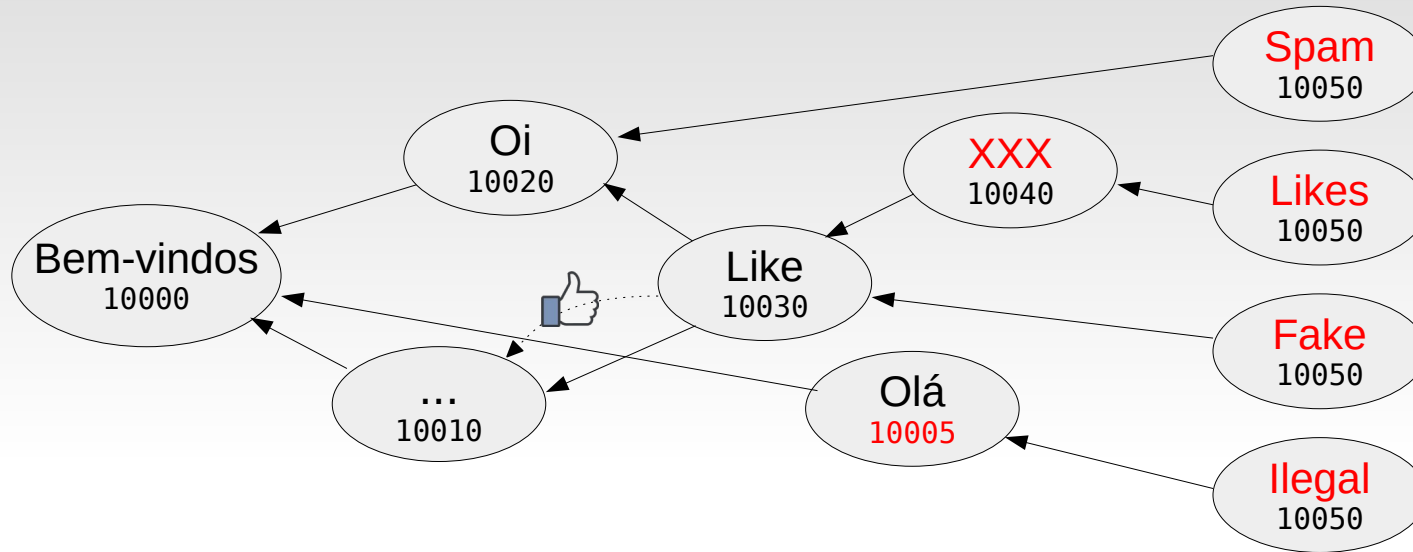
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 - Conteúdo (**qualidade**)
 - Sybils (**quantidade**)

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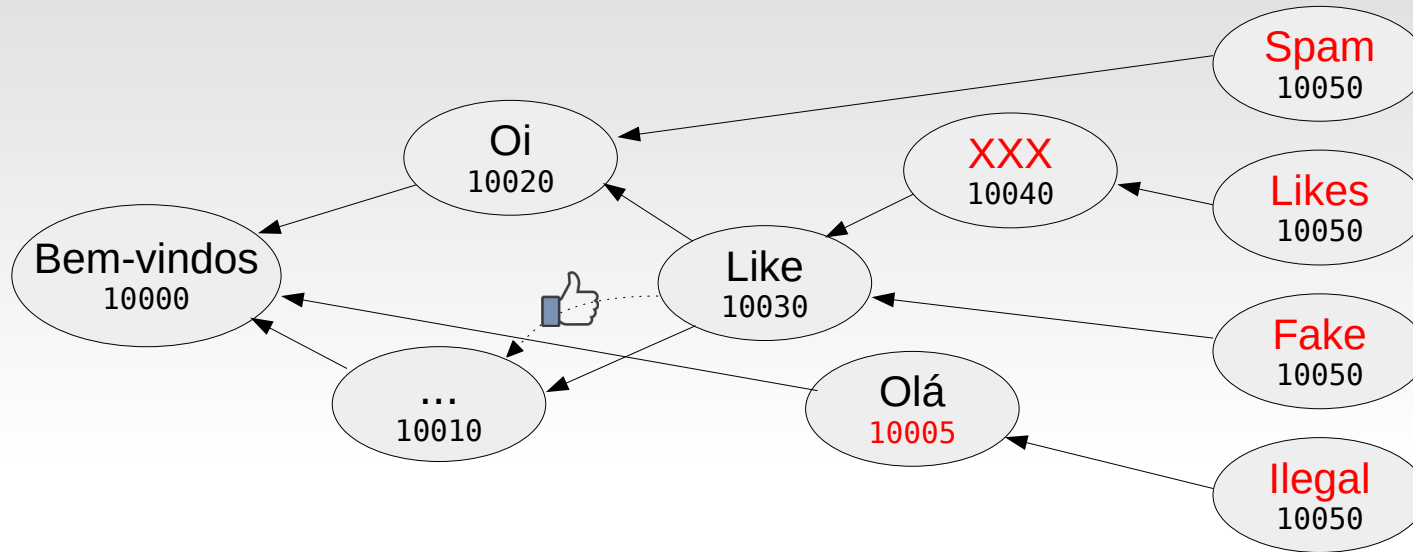


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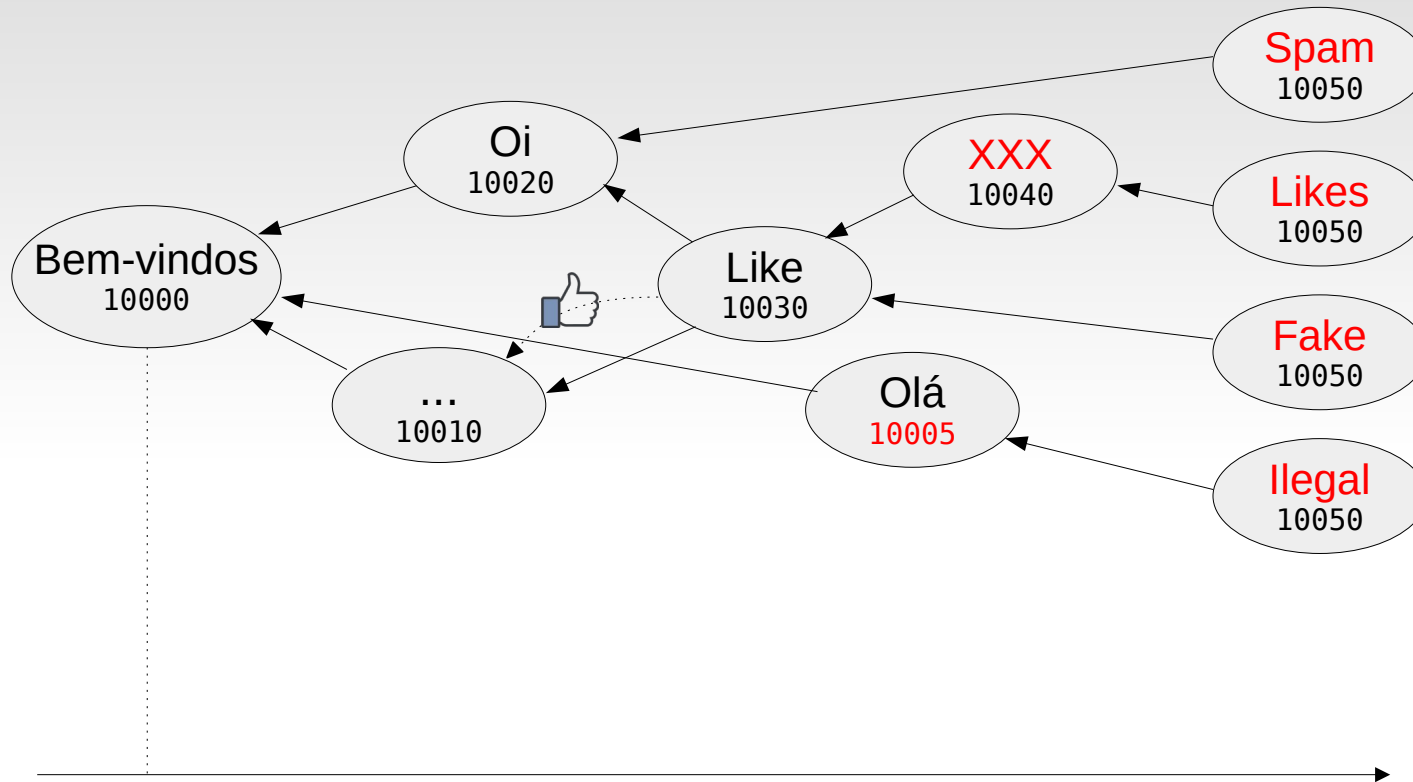
(?) DAGs → Consenso (?)



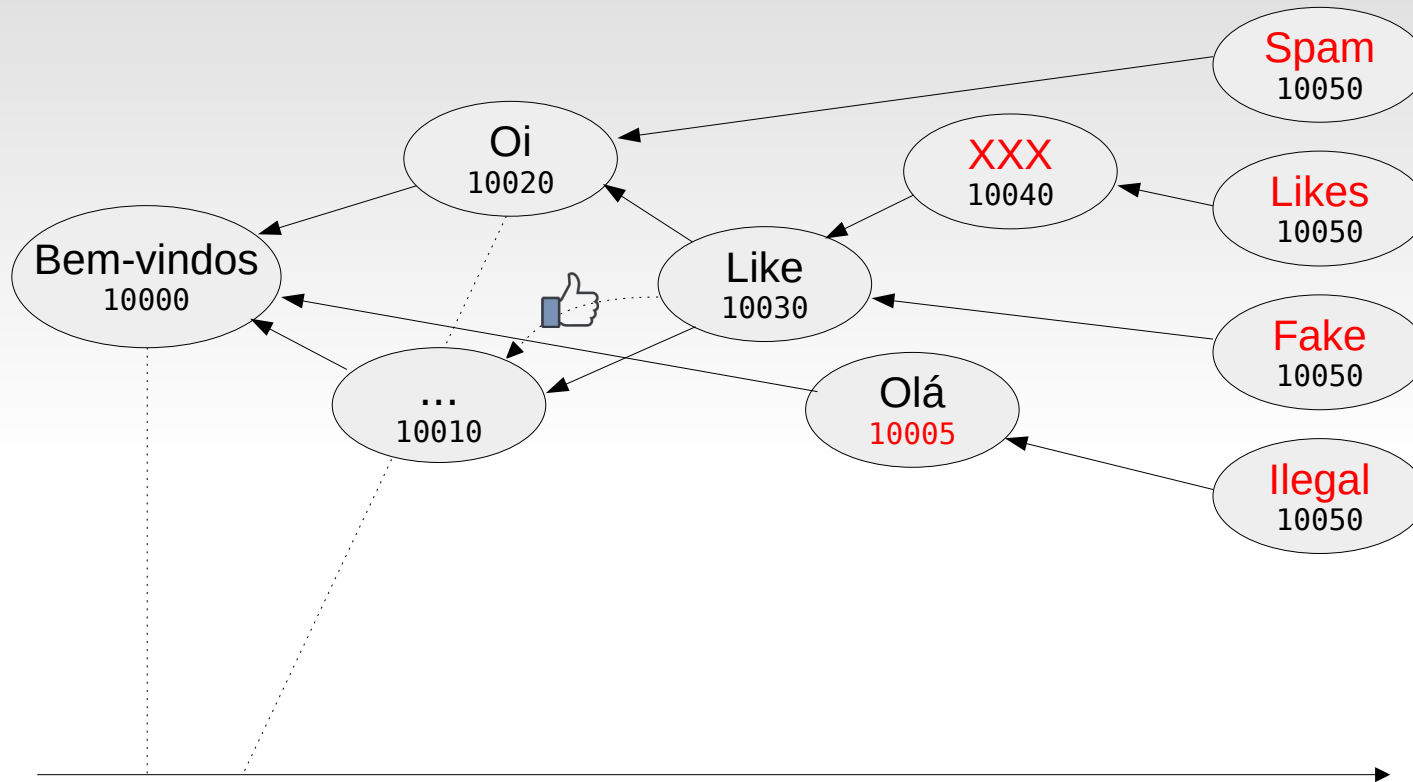
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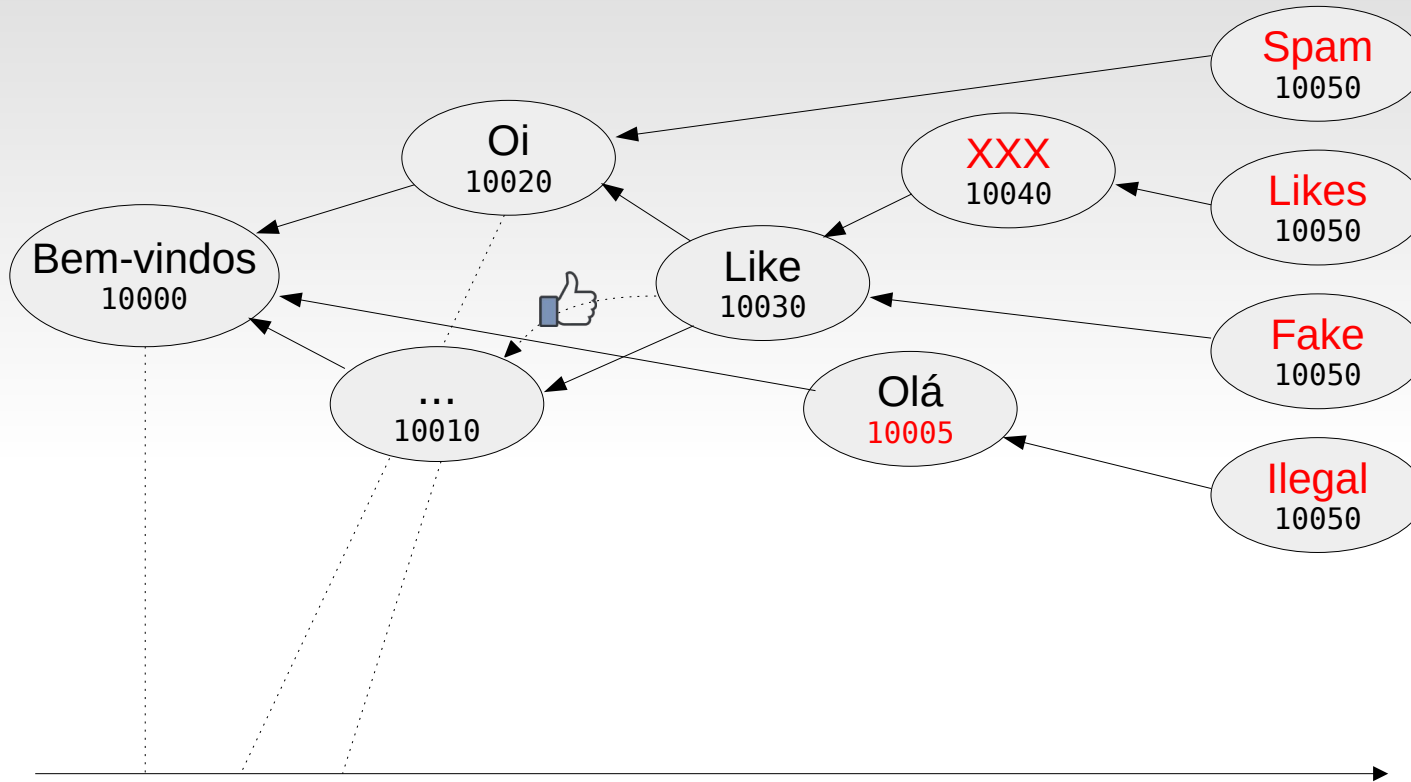
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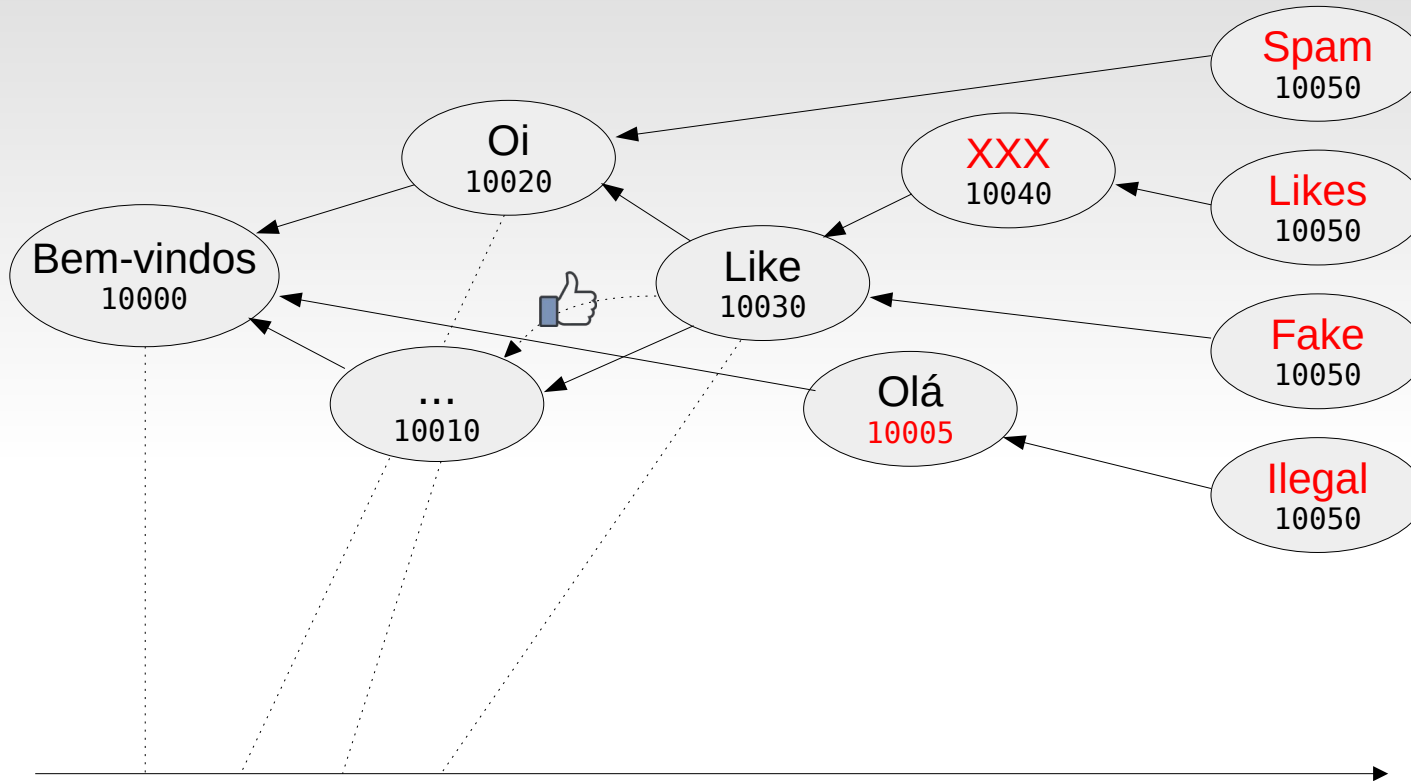
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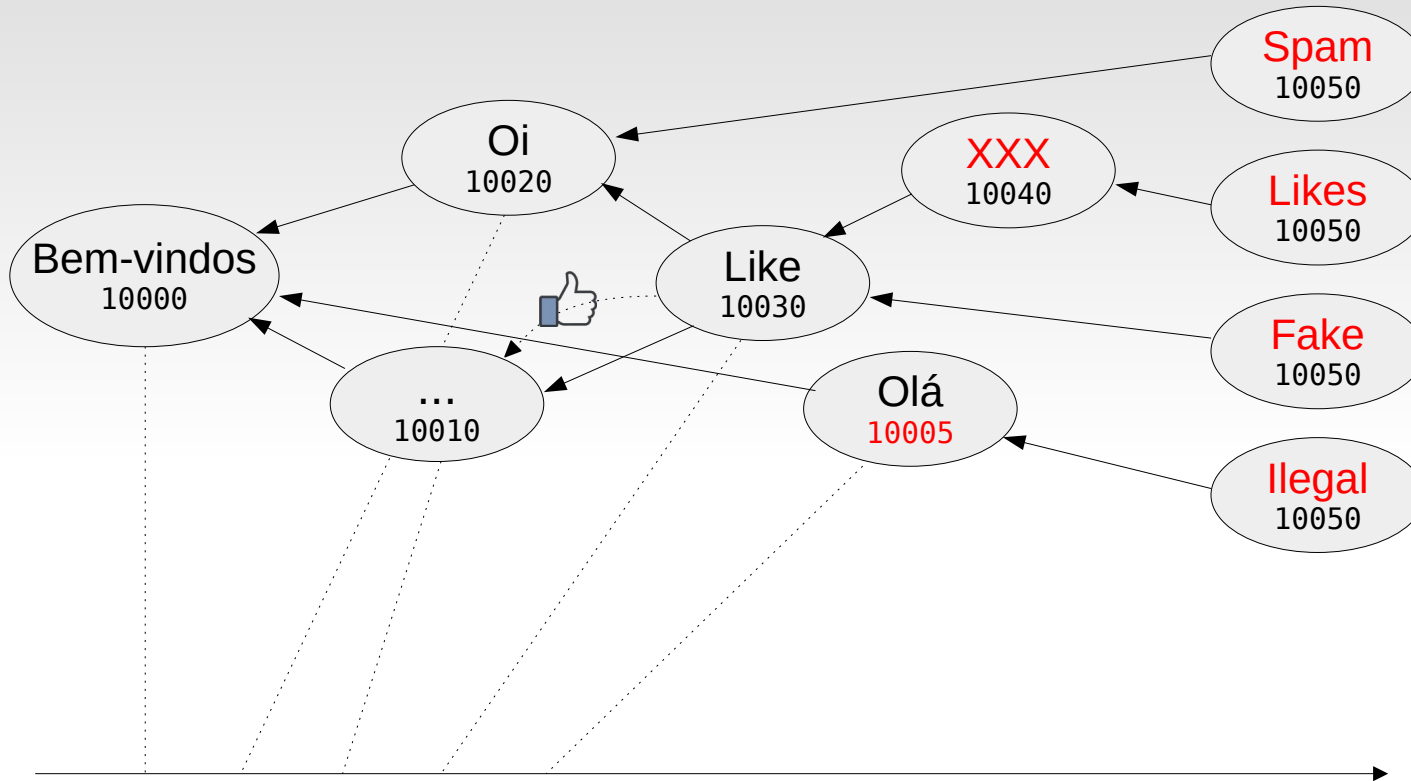
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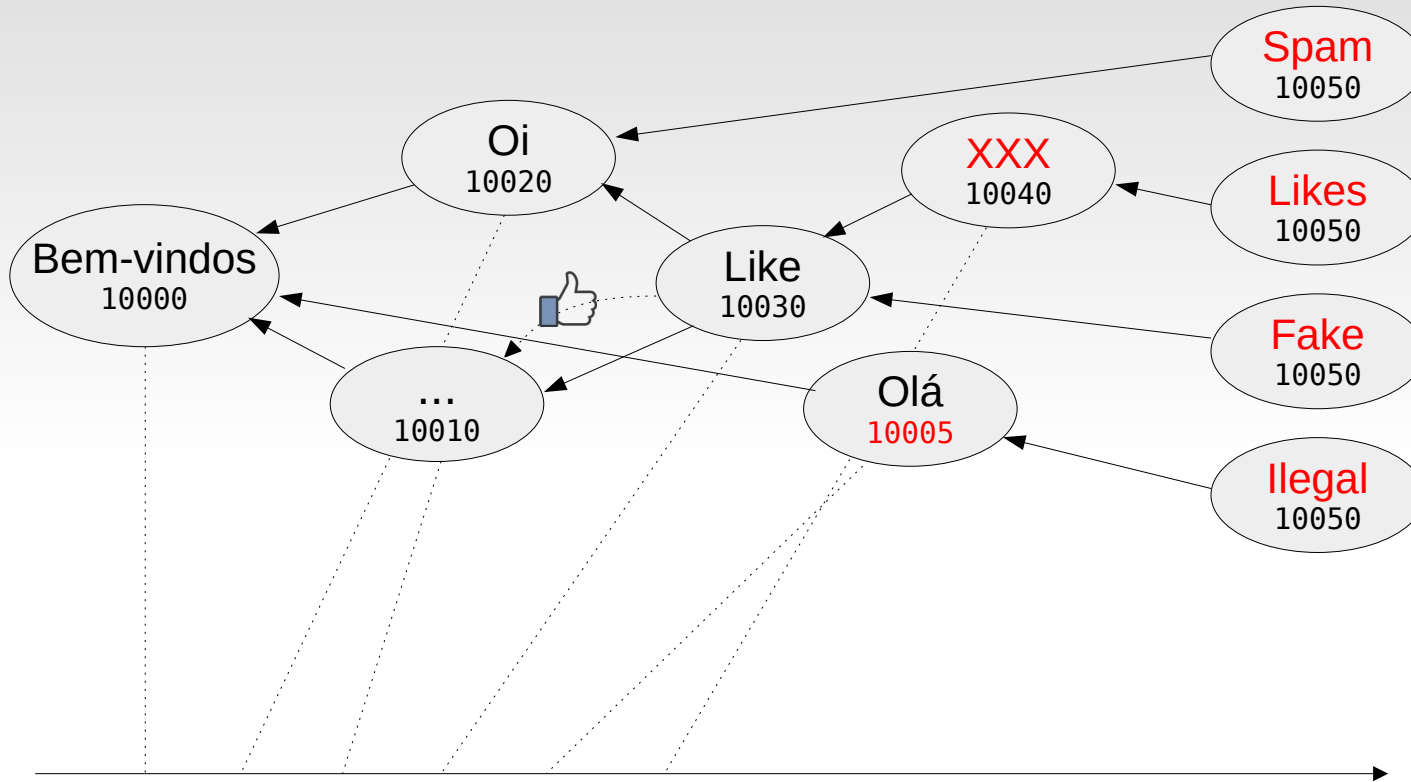
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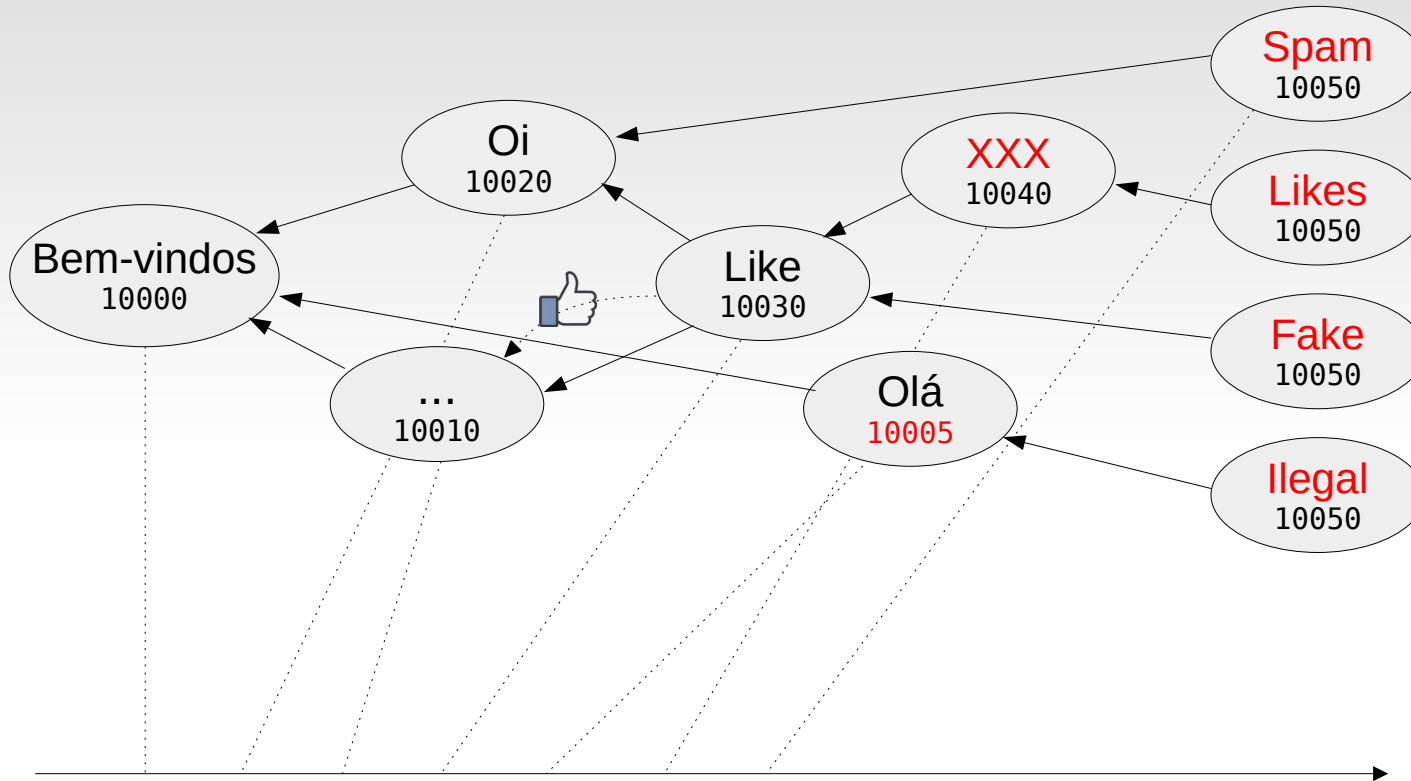
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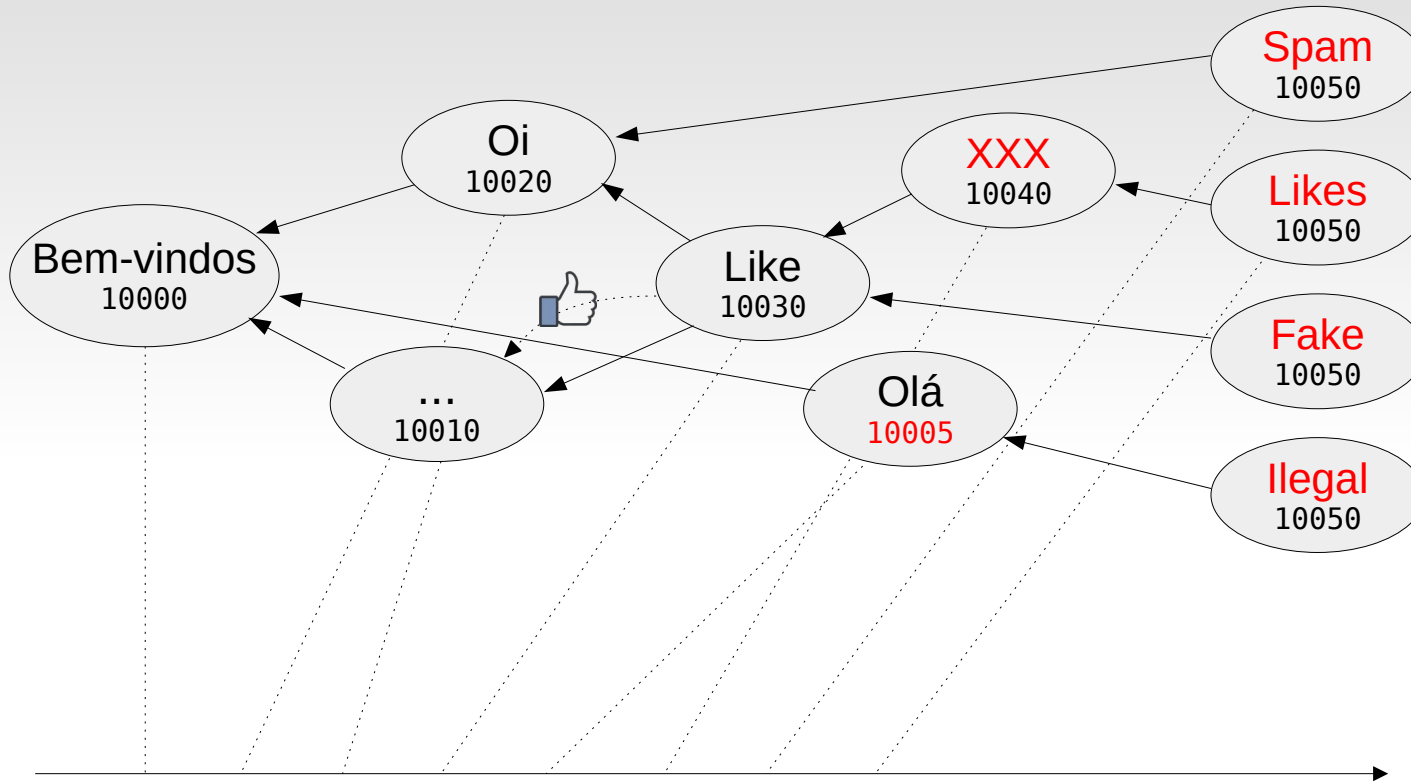
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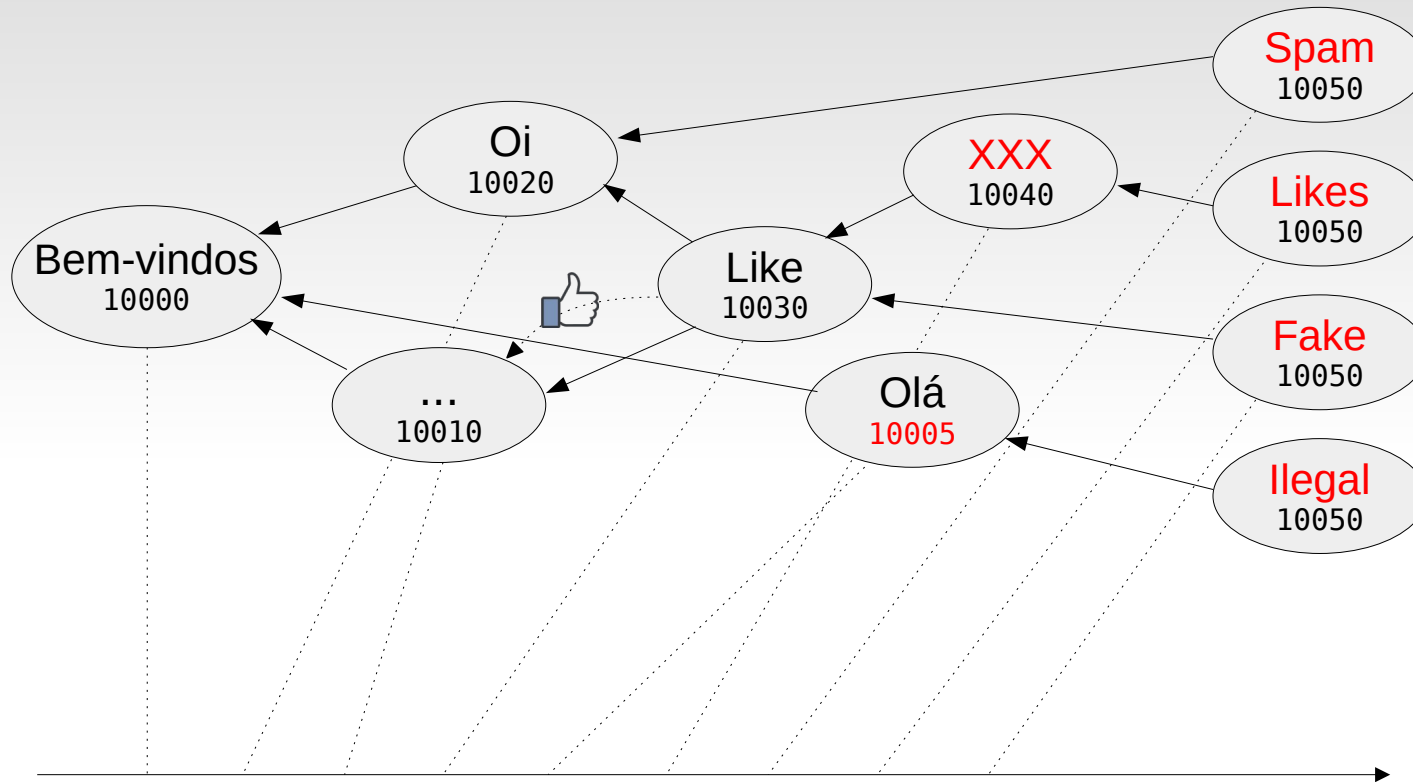
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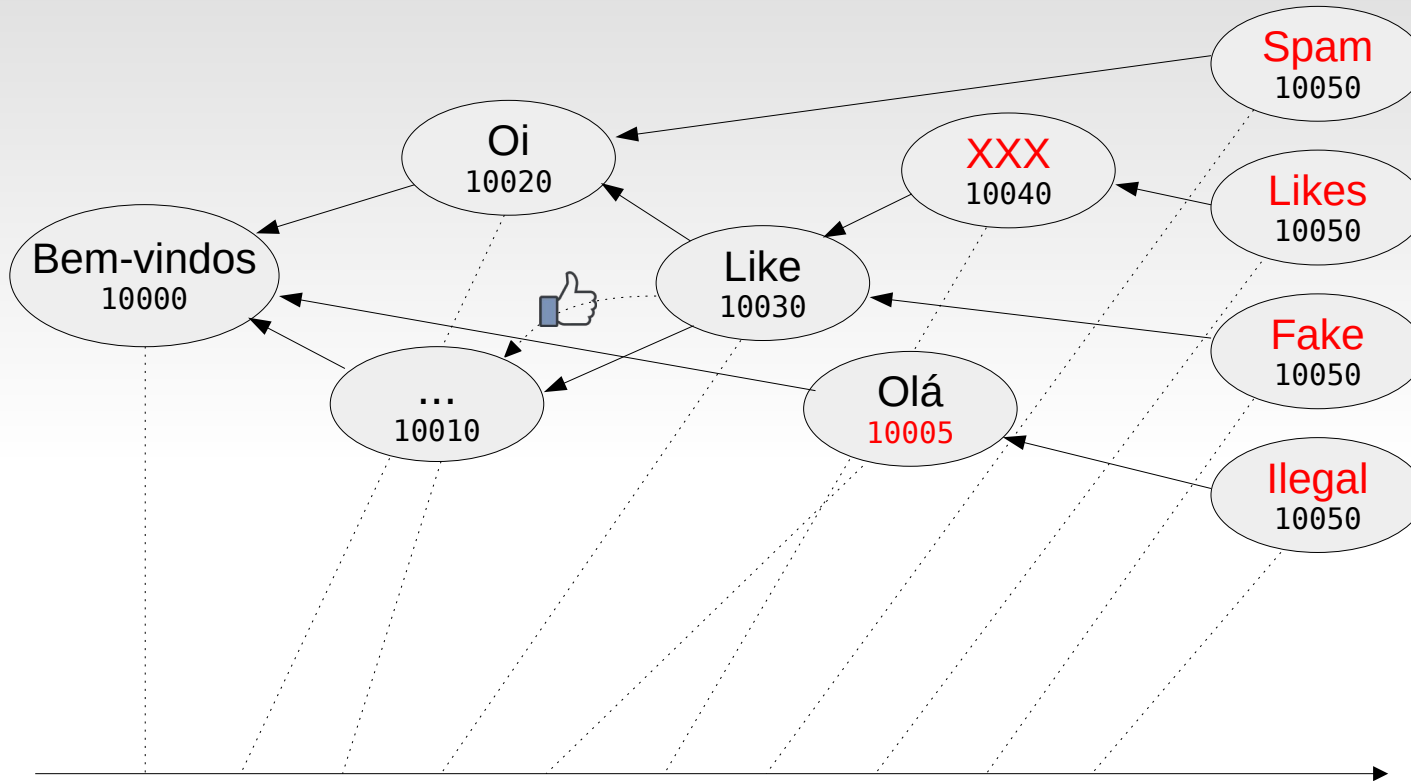
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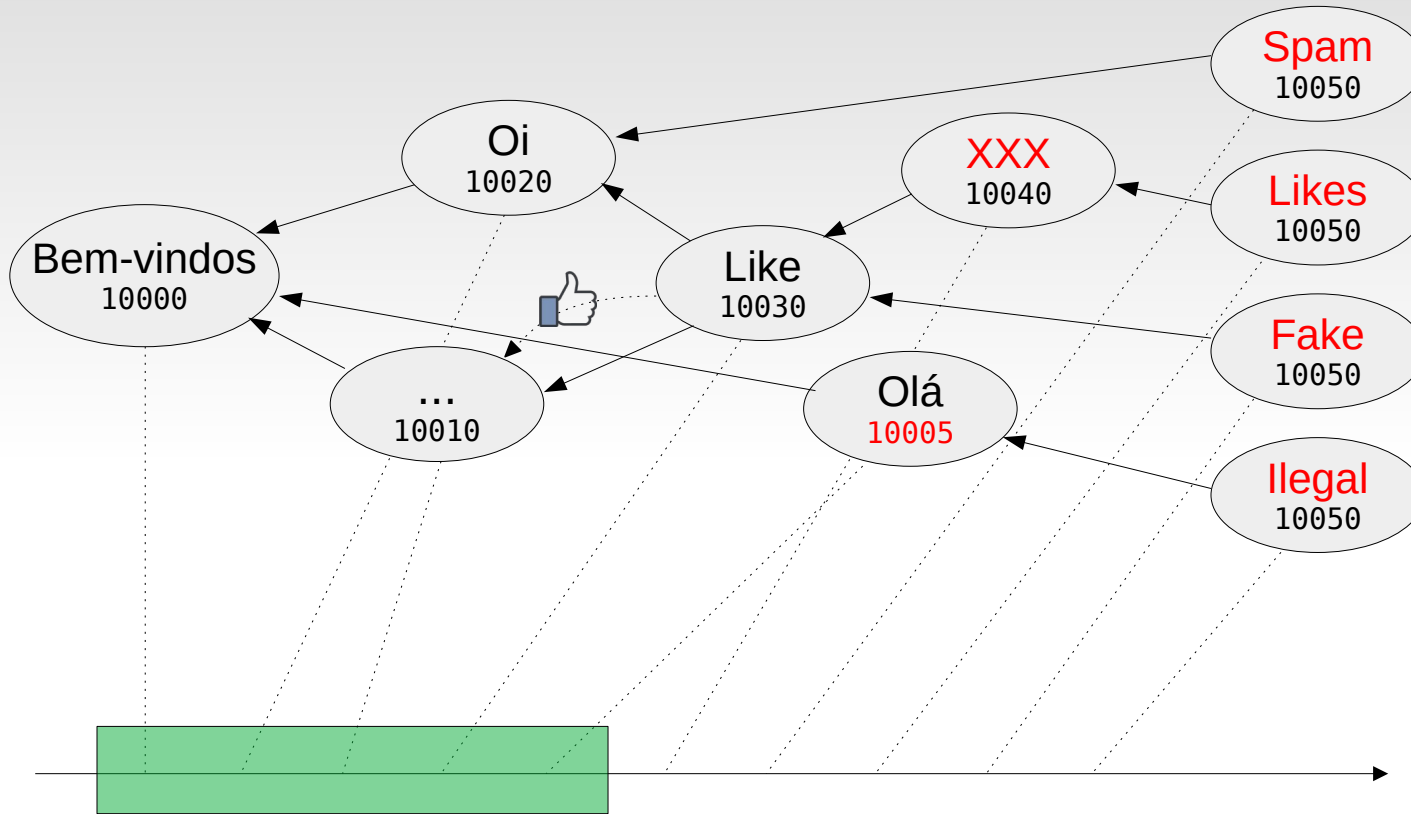
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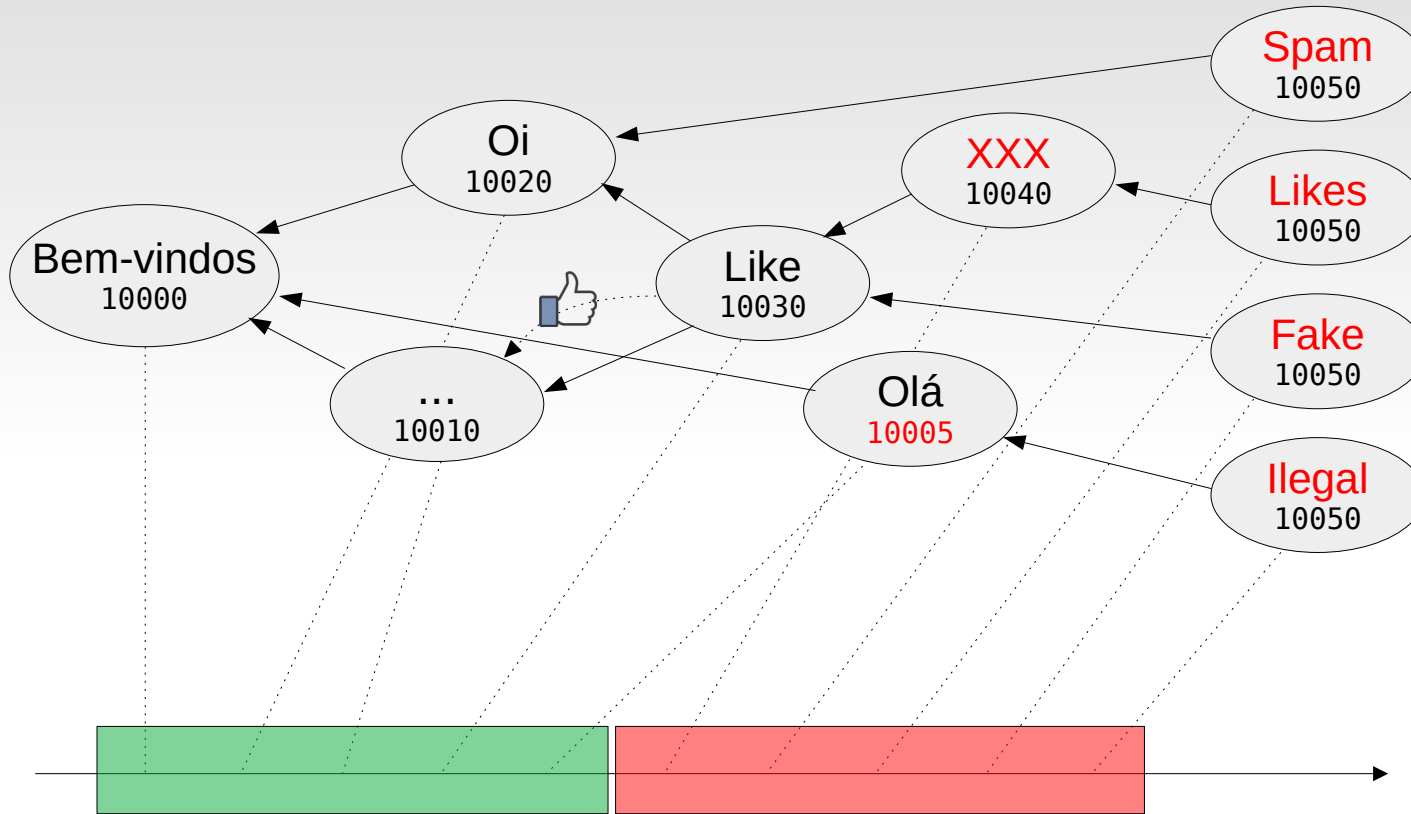
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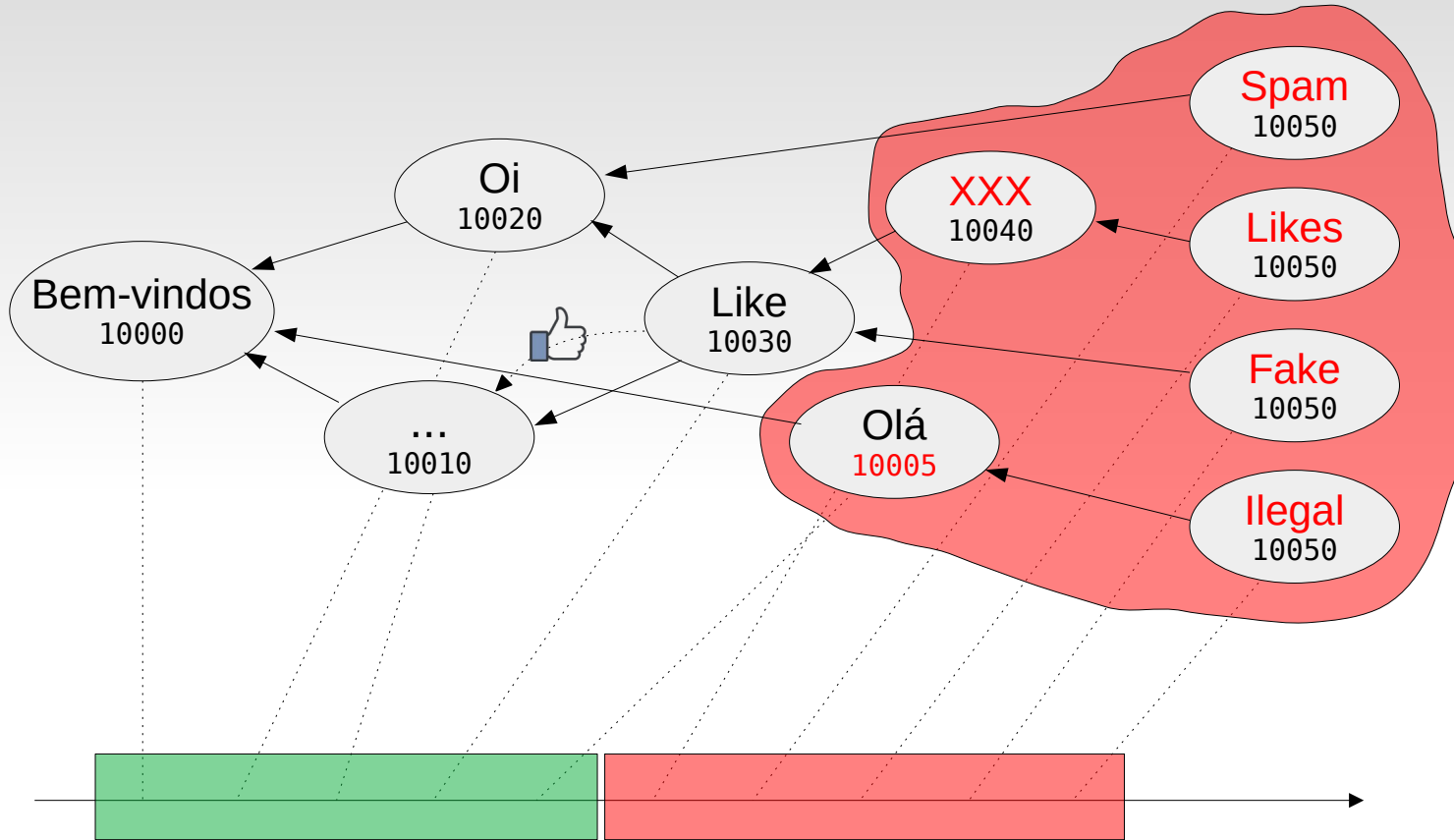
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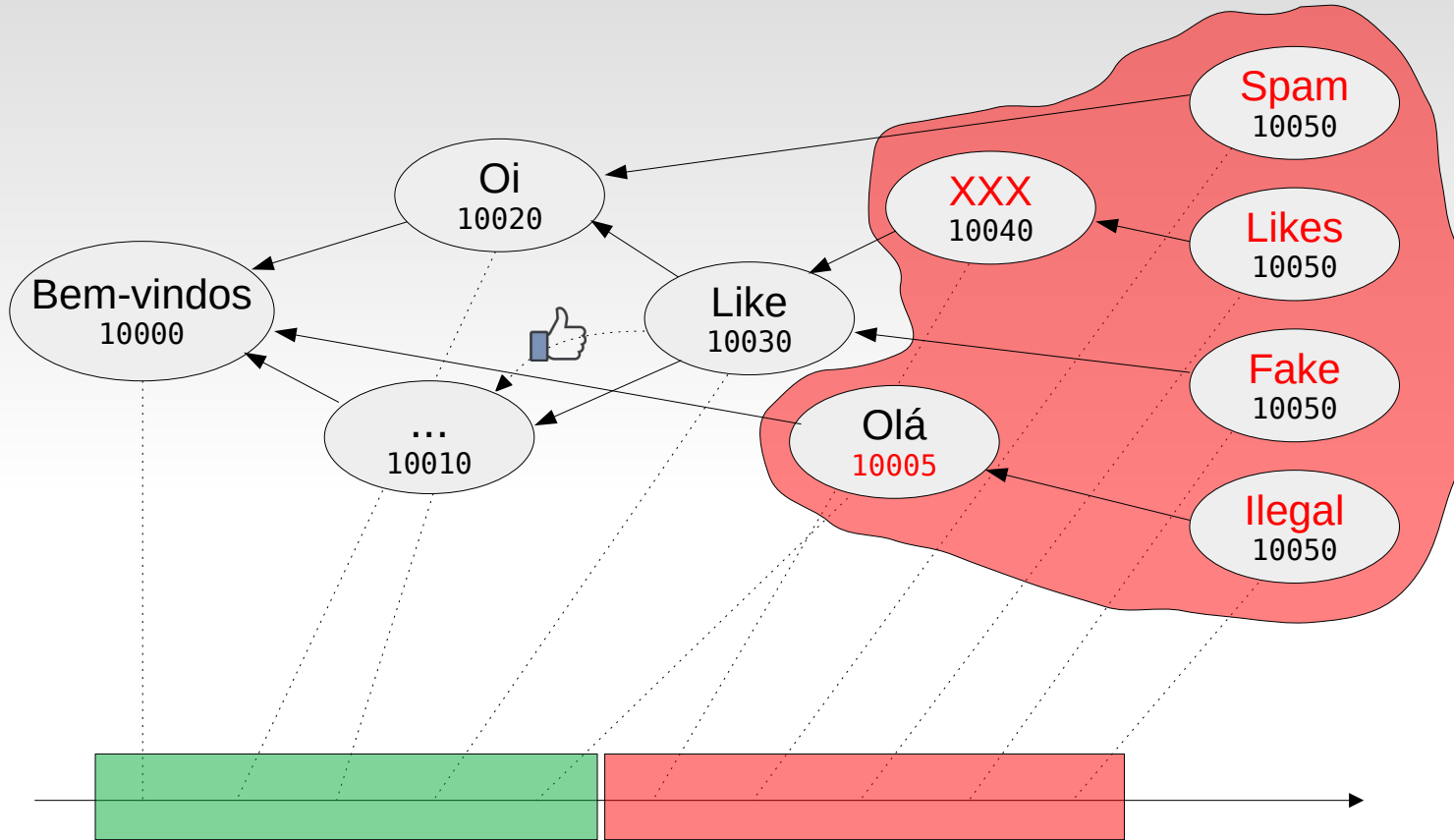
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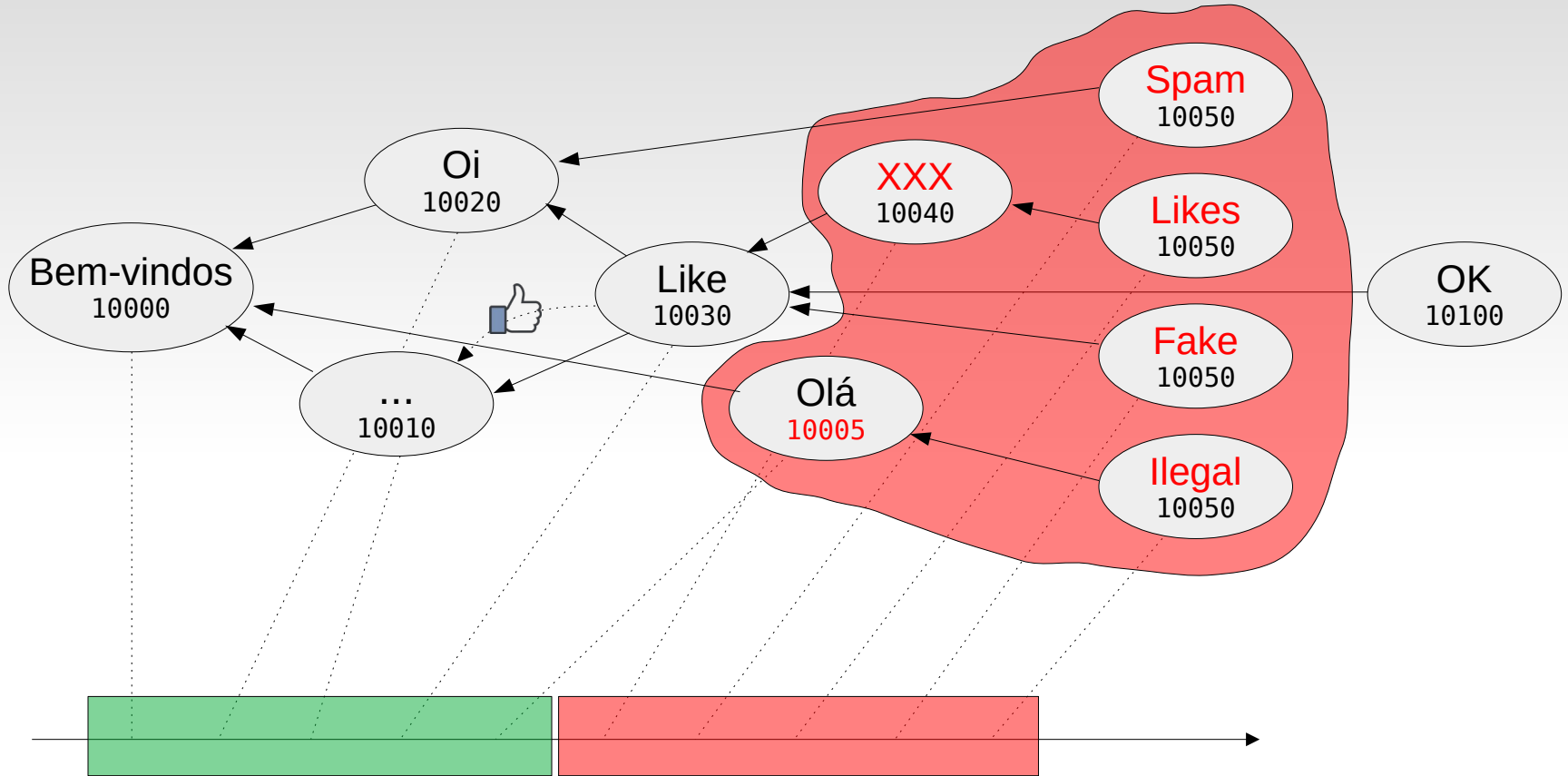
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Reputação (reps)

Emission	1.a	pioneers	+30 <i>reps</i> to pioneers
	1.b	old post	+1 <i>rep</i> to author (>24h)
Expense	2	new post	-1 <i>rep</i> to author (0-12h)
Transfer	3.a	like	-1 <i>rep</i> -> +1 <i>rep</i>
	3.b	dislike	-1 <i>rep</i> -> -1 <i>rep</i>
Constraints	4.a	min	+1 <i>rep</i> to post
	4.b	max	+30 <i>reps</i> max
	4.c	size	128Kb max

Reputação (reps)

- Criação de fórum → + reps

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- Criação de fórum → + reps
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- Conteúdo consolidado → + reps

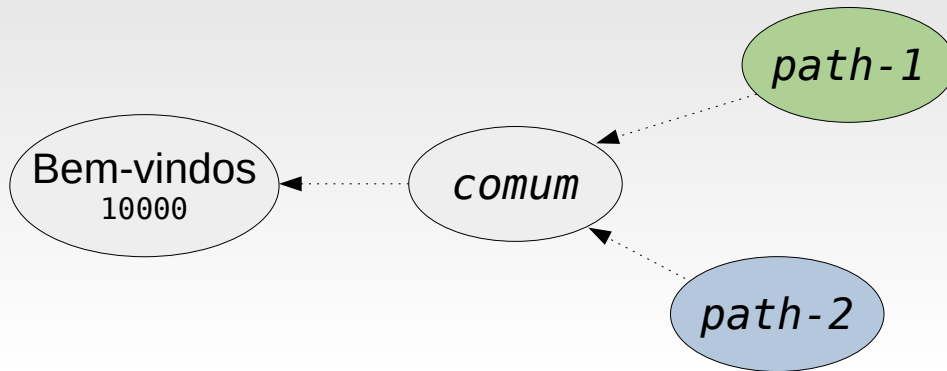
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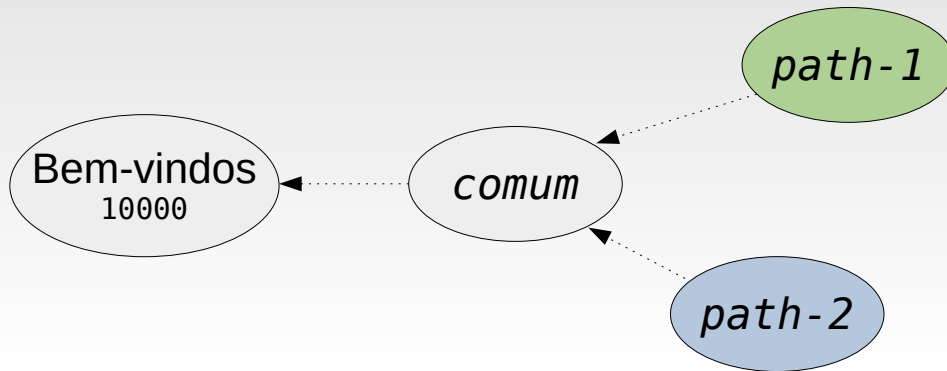
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- Likes & Dislikes → +/- reps

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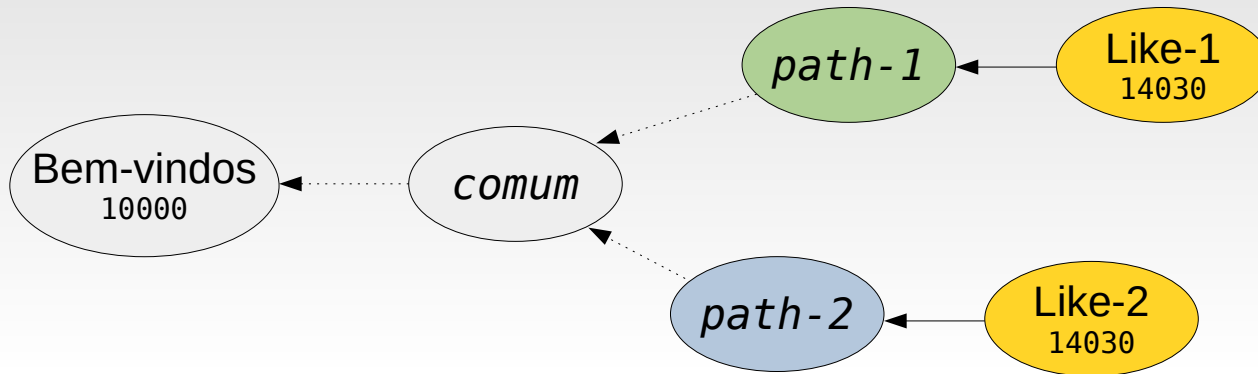
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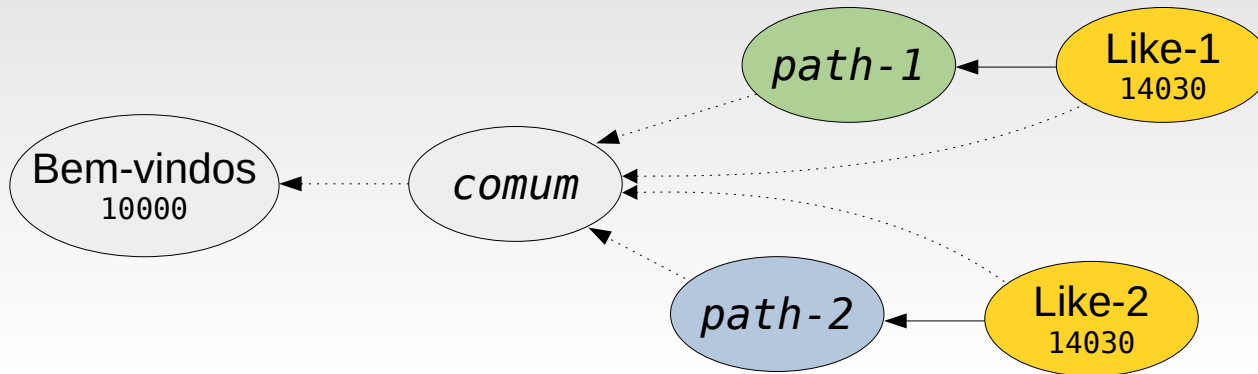
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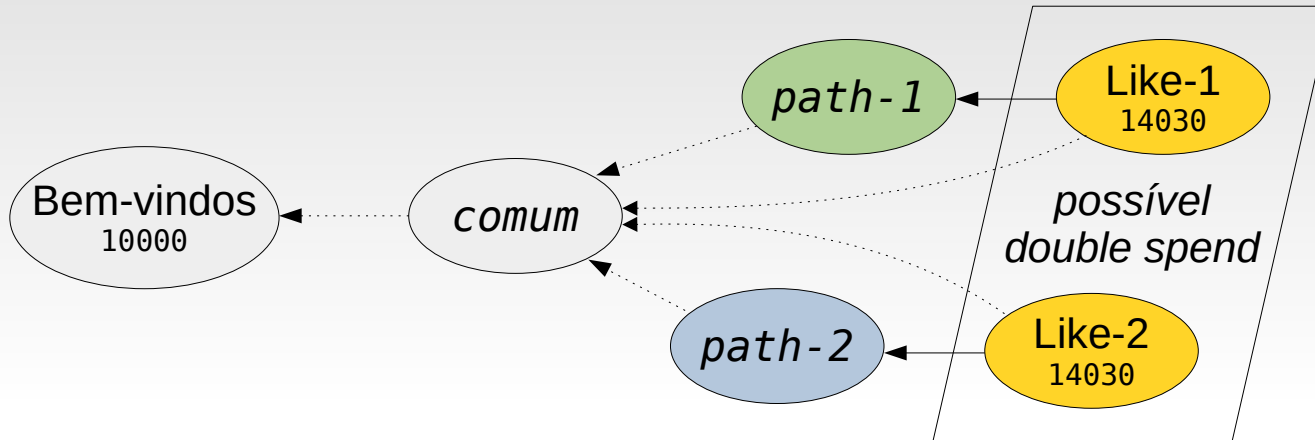
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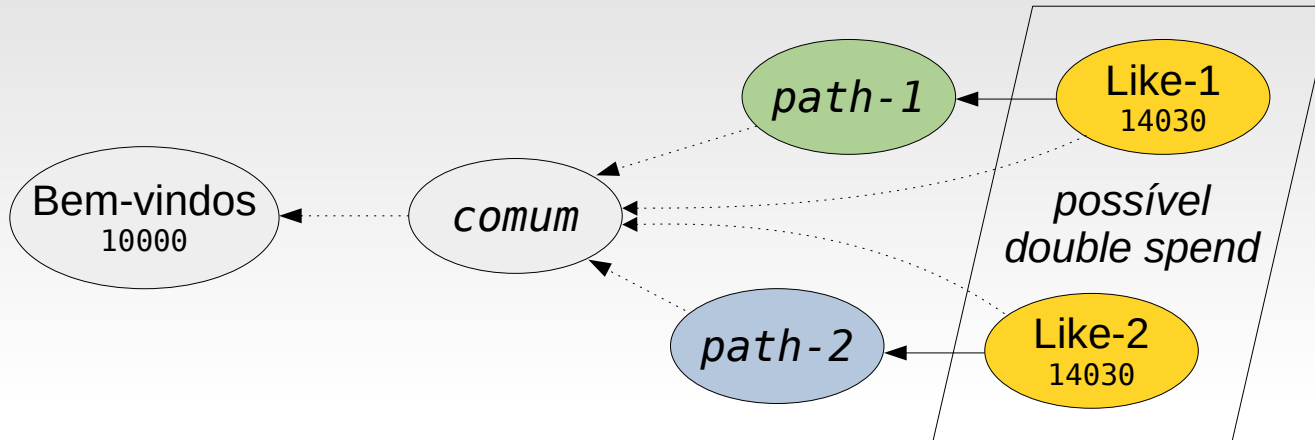
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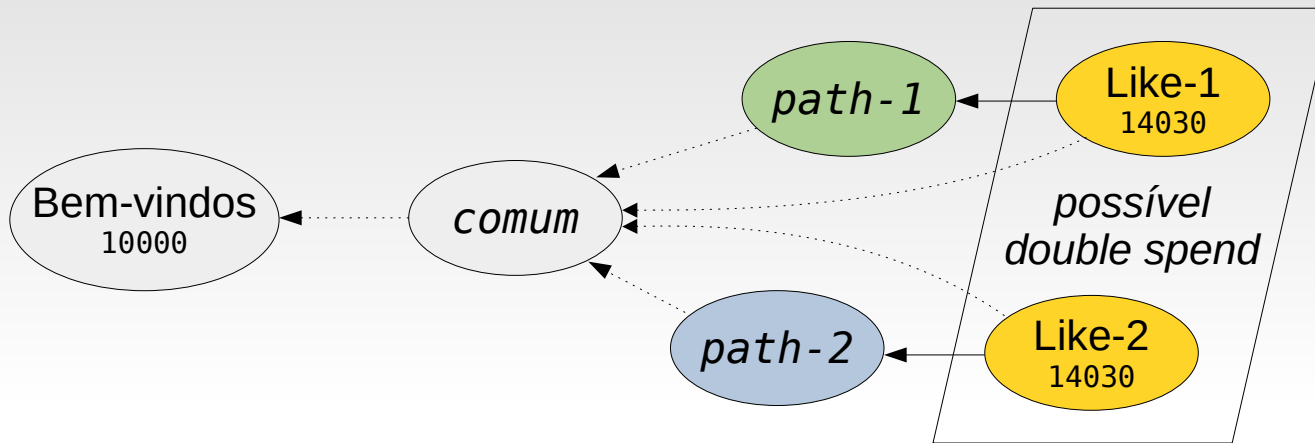
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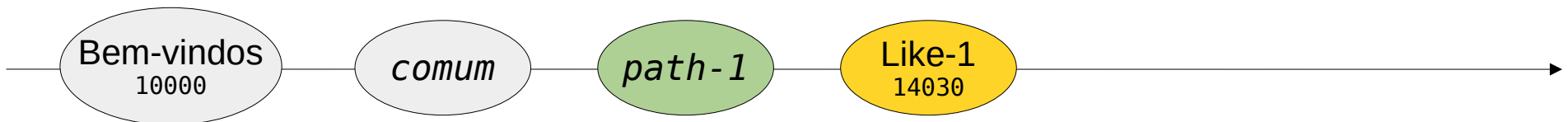
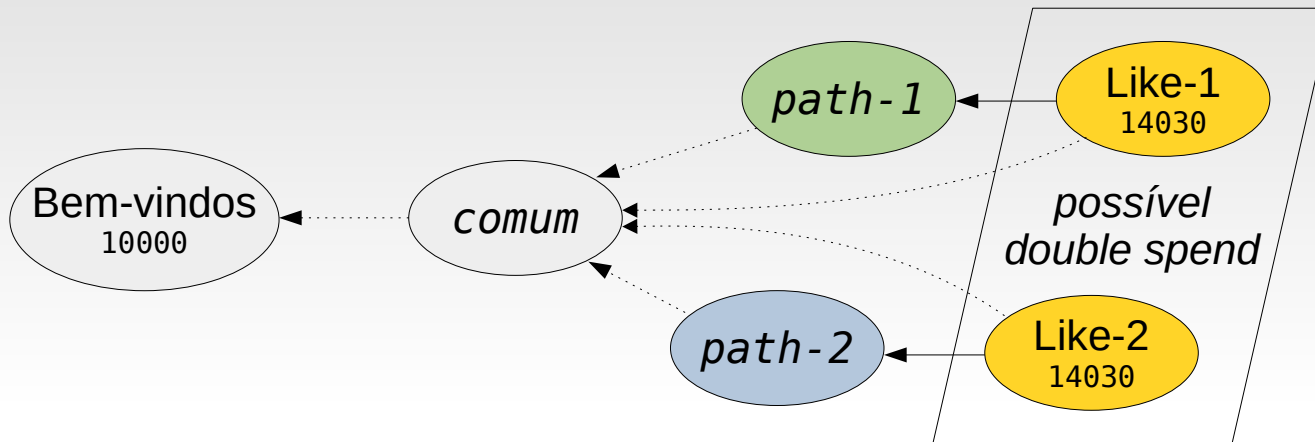
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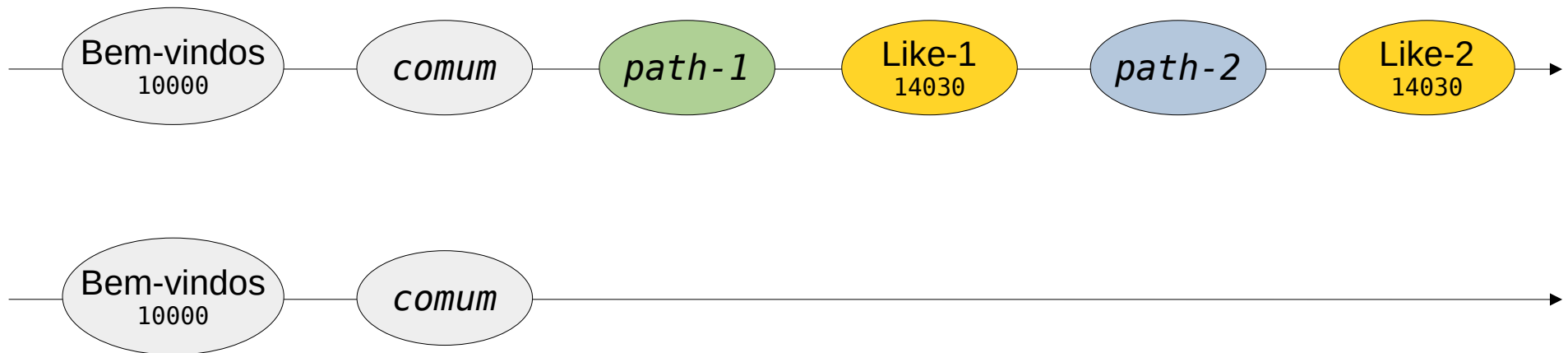
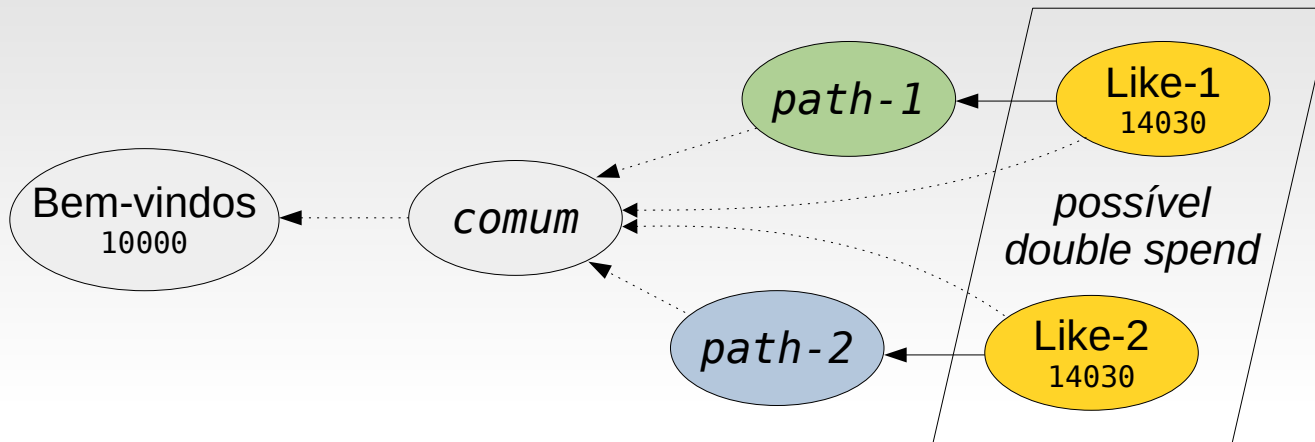
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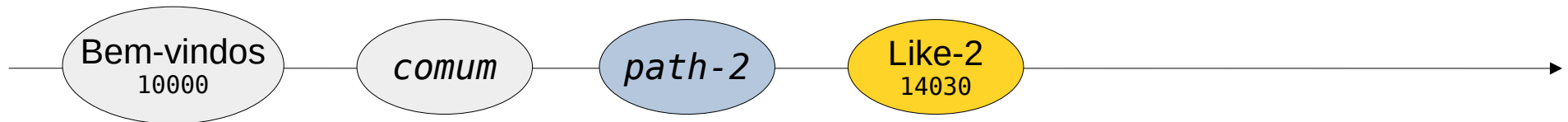
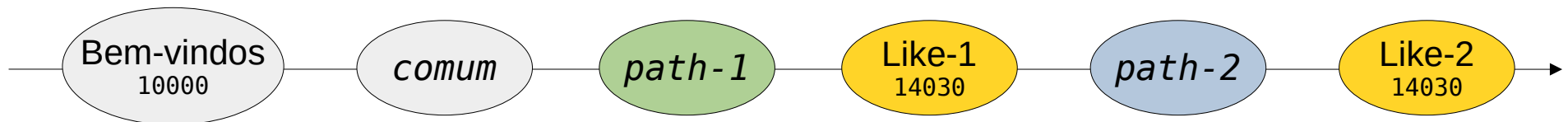
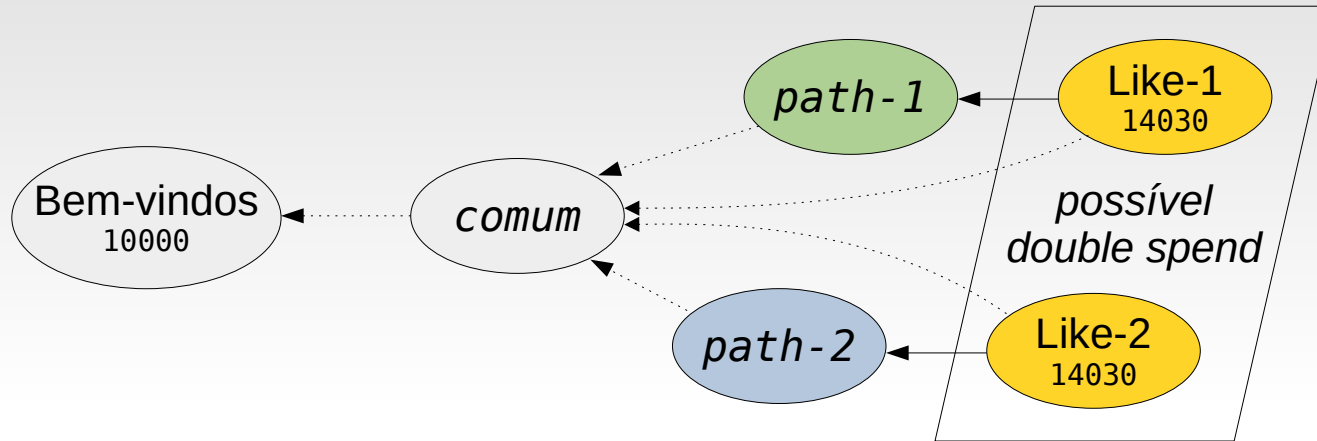
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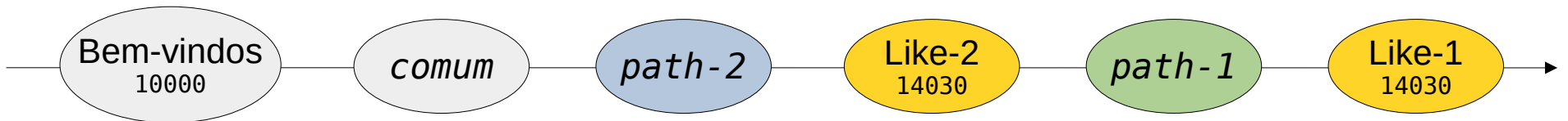
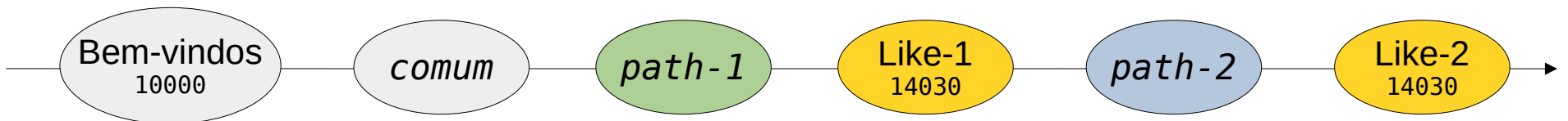
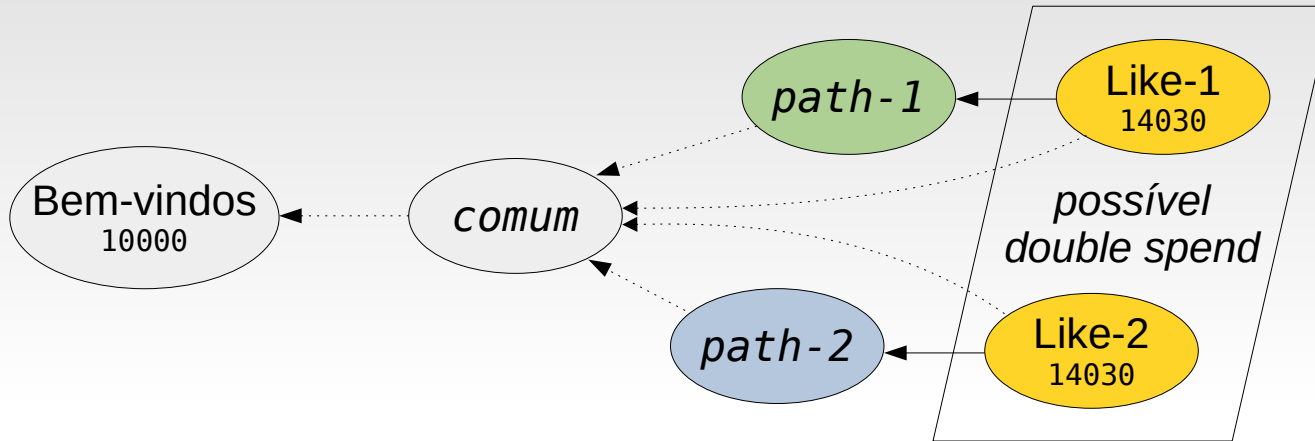
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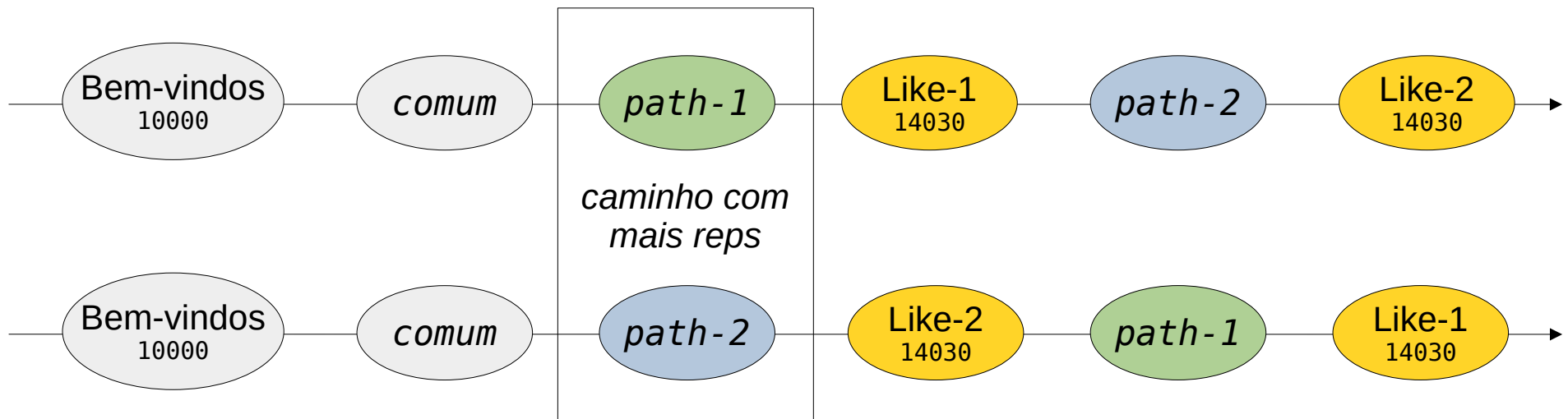
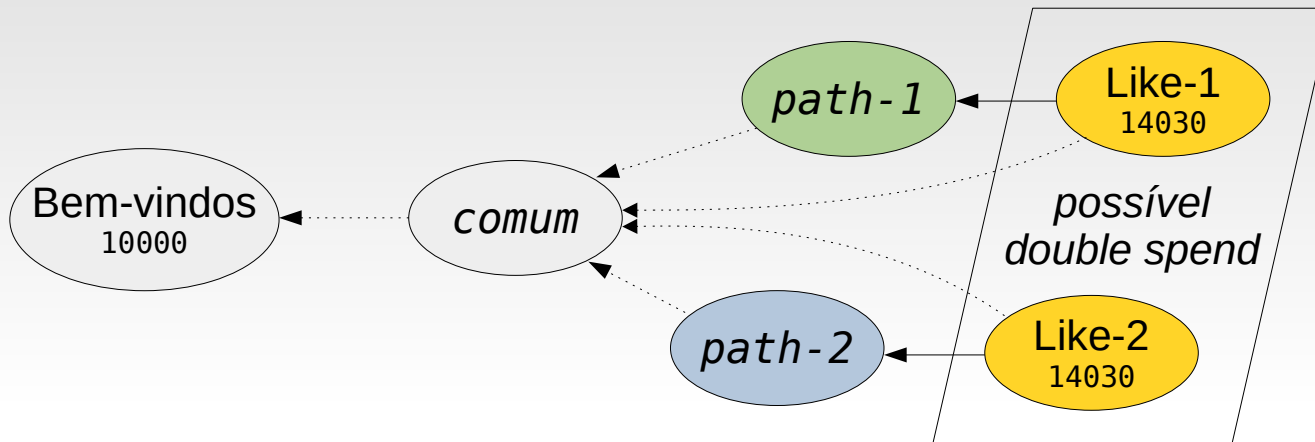
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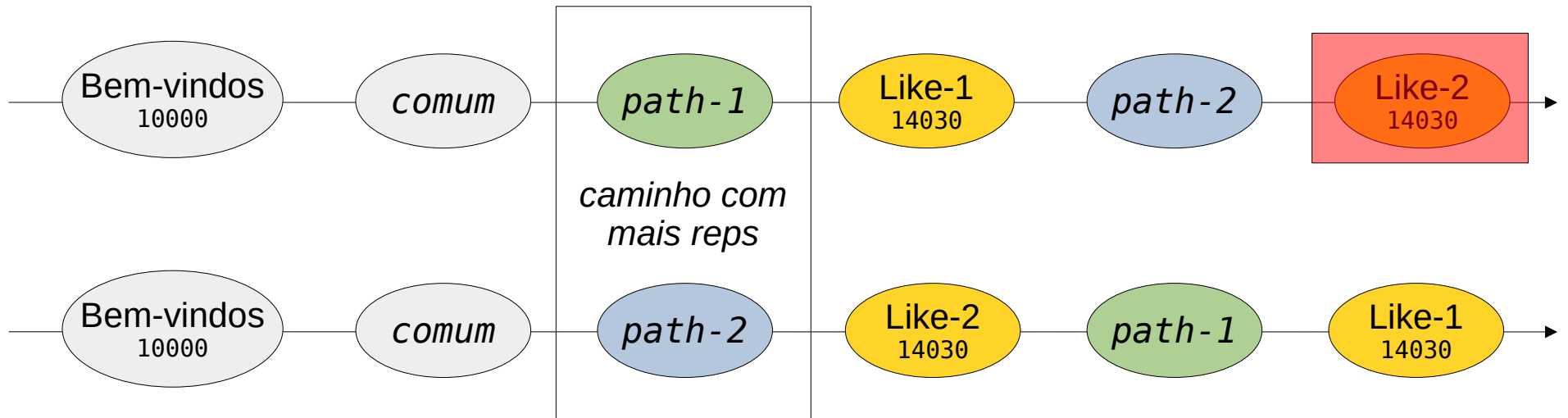
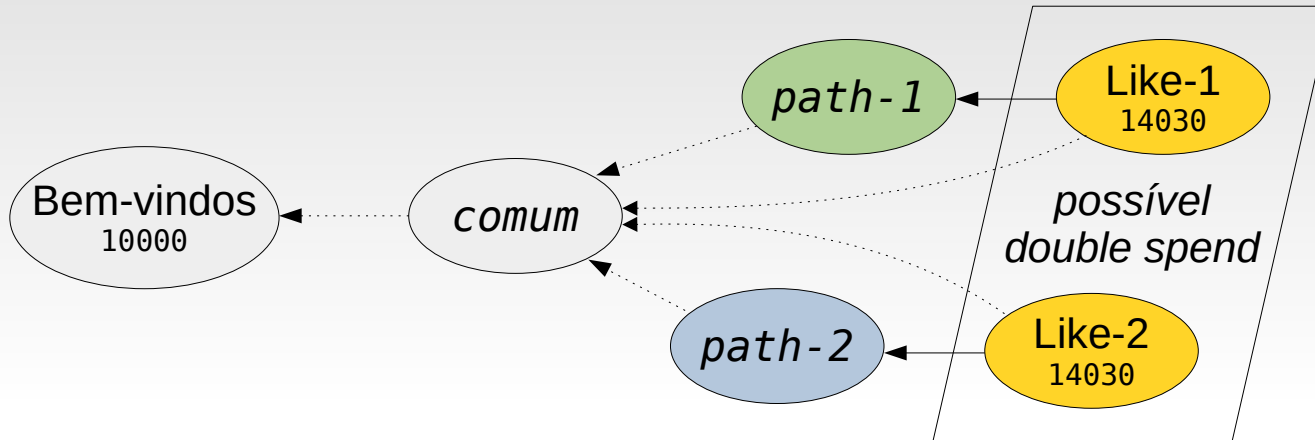
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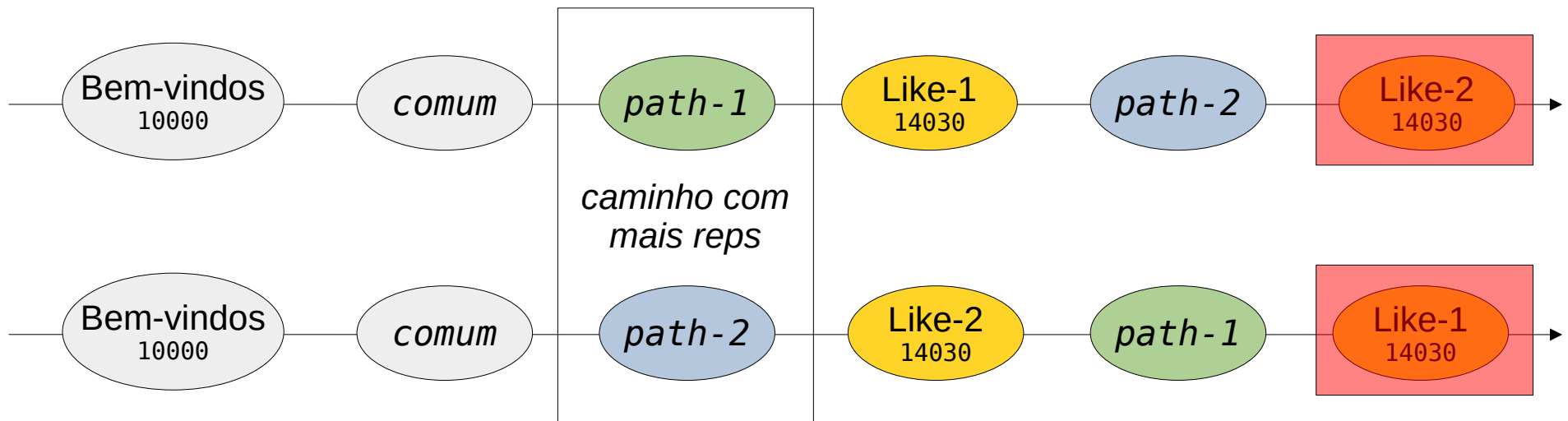
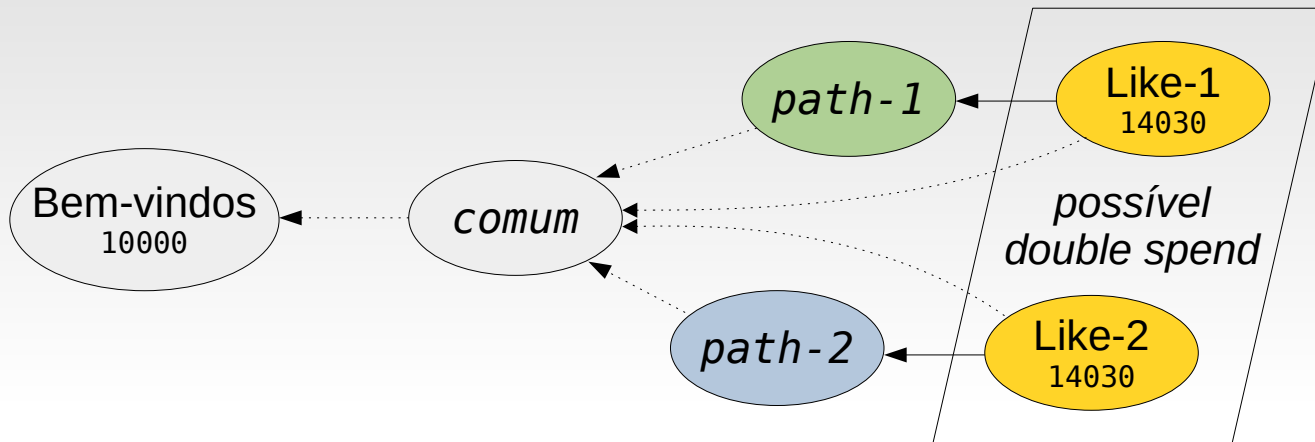
Reputação → Consenso



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Reputação → Consenso



Freechains

- Protocolo de consenso não permissionado
- Consenso por reputação (proof-of-authoring)
- Julgamento subjetivo (likes & dislikes)
- Resolve o problema de *double-spending*



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